

**ABSTRACT**

A method of applying scatter and attenuation correction to emission tomography images of a region of interest of a patient under observation comprises the steps of aligning a three-dimensional computer model representing the density distribution within the region of interest with the emission tomography images. The computer model is created from image data of other subjects thereby to avoid the need to image the subject under observation to create the computer model. Scatter and attenuation correction is applied to the emission tomography images using the aligned computer model as a guide.